

```

10      20      30      40      50
*      *      *      *      *
GG ATC CTT TTC TAT TAA ACA TAT AAA TTC TTT TTT ATG TTA TAT ATT TAT
Ile Leu Phe Tyr *** Thr Tyr Lys Phe Phe Phe Met Leu Tyr Ile Tyr>
a a a a TRANSLATION OF UNTITLED2 [A] a a a a >

60      70      80      90
*      *      *      *
AAA AGT TCT GTT TAA AAA GCC AAA AAT AAA TAA TTA TCT CTT TTT ATT
Lys Ser Ser Val *** Lys Ala Lys Asn Lys *** Leu Ser Leu Phe Ile>
a a a a TRANSLATION OF UNTITLED2 [A] a a a a >

110     120     130     140
*      *      *      *
TAT ATT ATA TTG AAA CTA AAG TTT ATT AAT TTC AAT ATA ATA TAA ATT
Tyr Ile Ile Leu Lys Leu Lys Phe Ile Asn Phe Asn Ile Ile *** Ile>
a a a a TRANSLATION OF UNTITLED2 [A] a a a a >

```

FIG 1A

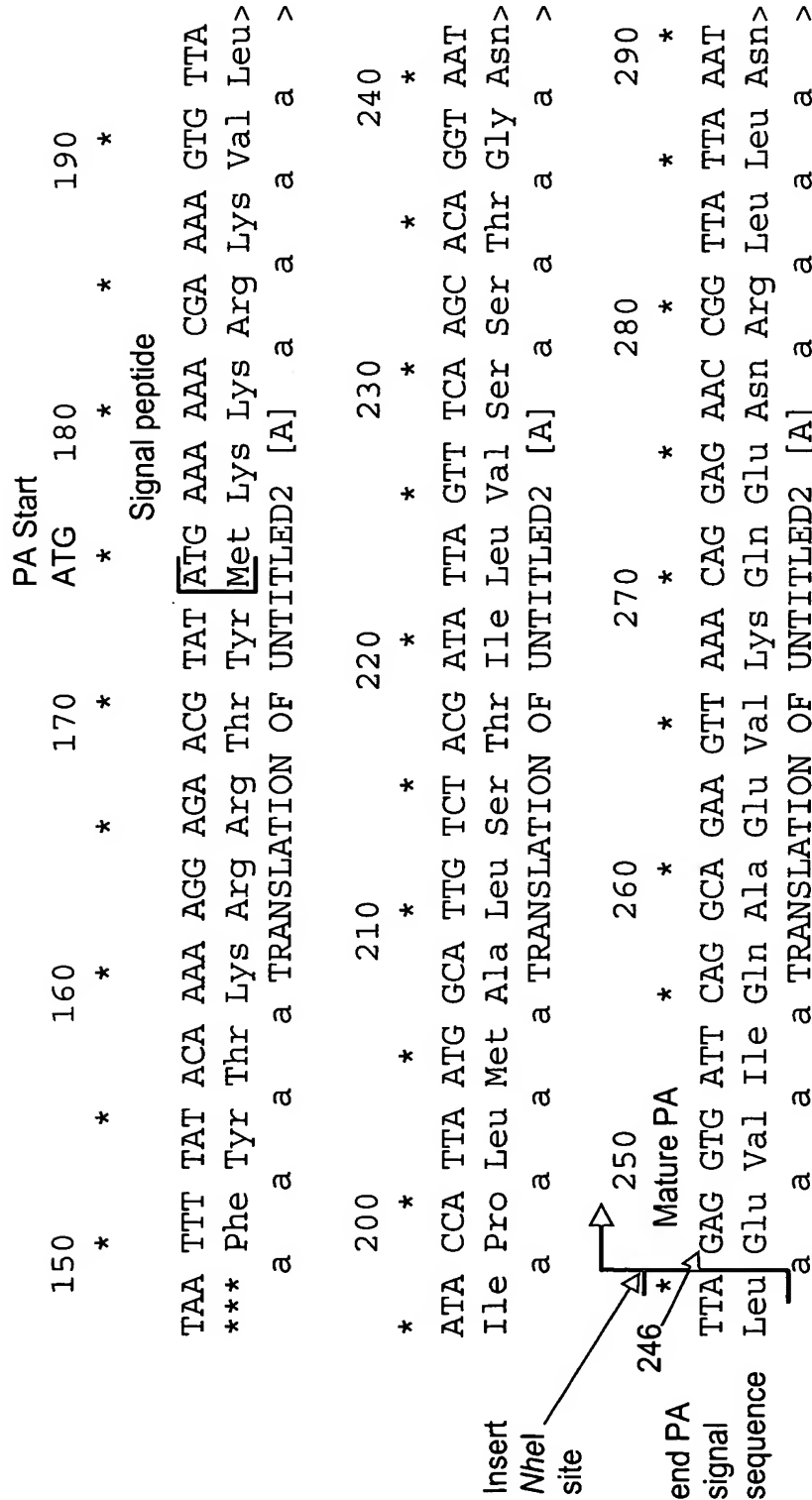


FIG 1B

	300	310	320	330	
*	*	*	*	*	*
GAA TCA GAA TCA AGT TCC CAG GGG TTA CTA GGA TAC TAT TTT AGT GAT					
Glu Ser Glu Ser Ser Ser Gln Gly Leu Leu Gly Tyr Tyr Phe Ser Asp>					
a a a a TRANSLATION OF UNTITLED2 [A]			a a a a	a a a a	>
340	350	360	370	380	
*	*	*	*	*	*
TTG AAT TTT CAA GCA CCC ATG GTG GTT ACC TCT TCT ACT ACA GGG GAT					
Leu Asn Phe Gln Ala Pro Met Val Thr Ser Ser Thr Thr Gly Asp>					
a a a a TRANSLATION OF UNTITLED2 [A]			a a a a	a a a a	>
390	400	410	420	430	
*	*	*	*	*	*
TTA TCT ATT CCT AGT TCT GAG TTA GAA AAT ATT CCA TCG GAA AAC CAA					
Leu Ser Ile Pro Ser Ser Glu Leu Glu Asn Ile Pro Ser Glu Asn Gln>					
a a a a TRANSLATION OF UNTITLED2 [A]			a a a a	a a a a	>
440	450	460	470	480	
*	*	*	*	*	*
TAT TTT CAA TCT GCT ATT TGG TCA GGA TTT ATC AAA GTT AAG AAG AGT					
Tyr Phe Gln Ser Ala Ile Trp Ser Gly Phe Ile Lys Val Lys Lys Ser>					
a a a a TRANSLATION OF UNTITLED2 [A]			a a a a	a a a a	>

FIG 1C

490	500	510	520	530
* * * * *				*
GAT GAA TAT ACA TTT GCT ACT TCC GCT GAT AAT CAT GTA ACA ATG TGG				
Asp Glu Tyr Thr Phe Ala Thr Ser Ala Asp Asn His Val Thr Met Trp>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a			>
540	550	560	570	
* * * * *			*	*
GTA GAT GAC CAA GAA GTG ATT AAT AAA GCT TCT AAT TCT AAC AAA ATC				
Val Asp Asp Gln Glu Val Ile Asn Lys Ala Ser Asn Ser Asn Lys Ile>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a			>
580	590	600	610	620
* * * * *			*	*
AGA TTA GAA AAA GGA AGA TTA TAT CAA ATA AAA ATT CAA TAT CAA CGA				
Arg Leu Glu Lys Gly Arg Leu Tyr Gln Ile Lys Ile Gln Tyr Gln Arg>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a			>
630	640	650	660	670
* * * * *			*	*
GAA AAT CCT ACT GAA AAA GGA TTG GAT TTC AAG TTG TAC TGG ACC GAT				
Glu Asn Pro Thr Glu Lys Gly Leu Asp Phe Lys Leu Tyr Trp Thr Asp>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a			>

FIG 1D

680		690	700	710	720
*	*	*	*	*	*
TCT CAA AAT AAA AAA GAA GTG ATT TCT AGT GAT AAC TTA CAA TTG CCA					
Ser Gln Asn Lys Lys Glu Val Ile Ser Ser Asp Asn Leu Gln Leu Pro>					
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a
730		740	750	760	770
*	*	*	*	*	*
GAA TTA AAA CAA AAA TCT TCG AAC TCA AGA AAA AAG CGA AGT ACA AGT					
Glu Leu Lys Gln Lys Ser Ser Asn Ser Arg Lys Lys Arg Ser Thr Ser>					
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a
780		790	800	810	
*	*	*	*	*	*
GCT GGA CCT ACG GTT CCA GAC GAC AAT GAT GGA ATC CCT GAT TCA					
Ala Gly Pro Thr Val Pro Asp Arg Asp Asn Asp Gly Ile Pro Asp Ser>					
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a
820		830	840	850	860
*	*	*	*	*	*
TTA GAG GTA GAA GGA TAT ACG GTT GAT GTC AAA AAT AAA AGA ACT TTT					
Leu Glu Val Glu Gly Tyr Thr Val Asp Val Lys Asn Lys Arg Thr Phe>					
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a

FIG 1E

870		880		890		900		910
*	*	*	*	*	*	*	*	*
CTT TCA CCA TGG ATT TCT AAT ATT CAT GAA AAG AAA GGA TTA ACC AAA								
Leu Ser Pro Trp Ile Ser Asn Ile His Glu Lys Lys Gly Leu Thr Lys>								
a a a a TRANSLATION OF UNTITLED2 [A]								a a a >
920		930		940		950		960
*	*	*	*	*	*	*	*	*
TAT AAA TCA TCT CCT GAA AAA TGG AGC ACG GCT TCT GAT CCG TAC AGT								
Tyr Lys Ser Ser Pro Glu Lys Trp Ser Thr Ala Ser Asp Pro Tyr Ser>								
a a a a TRANSLATION OF UNTITLED2 [A]								a a a >
970		980		990		1000		1010
*	*	*	*	*	*	*	*	*
GAT TTC GAA AAG GTT ACA GGA CGG ATT GAT AAG AAT GTA TCA CCA GAG								
Asp Phe Glu Lys Val Thr Gly Arg Ile Asp Lys Asn Val Ser Pro Glu>								
a a a a TRANSLATION OF UNTITLED2 [A]								a a a >
1020		1030		1040		1050		
*	*	*	*	*	*	*	*	*
GCA AGA CAC CCC CTT GTG GCA GCT TAT CCG ATT GTA CAT GTA GAT ATG								
Ala Arg His Pro Leu Val Ala Ala Tyr Pro Ile Val His Val Asp Met>								
a a a a TRANSLATION OF UNTITLED2 [A]								a a a >

FIG 1F

1060		1070		1080		1090		1100	
*	*	*	*	*	*	*	*	*	*
GAG AAT ATT ATT CTC TCA AAA AAT GAG GAT CAA TCC ACA CAG AAT ACT									
Glu Asn Ile Ile Leu Ser Lys Asn Glu Asp Gln Ser Thr Gln Asn Thr>									
a a a a a TRANSLATION OF UNTITLED2 [A]								a a a a	>
1110		1120		1130		1140		1150	
*	*	*	*	*	*	*	*	*	*
GAT AGT GAA ACG AGA ACA ATA AGT AAA AAT ACT TCT ACA AGT AGG ACA									
Asp Ser Glu Thr Arg Thr Ile Ser Lys Asn Thr Ser Thr Ser Arg Thr>									
a a a a a TRANSLATION OF UNTITLED2 [A]								a a a a	>
1160		1170		1180		1190		1200	
*	*	*	*	*	*	*	*	*	*
CAT ACT AGT GAA GTA CAT GGA AAT GCA GAA GTG CAT GCG TCG TTC TTT									
His Thr Ser Glu Val His Gly Asn Ala Glu Val His Ala Ser Phe Phe>									
a a a a a TRANSLATION OF UNTITLED2 [A]								a a a a	>
1210		1220		1230		1240		1250	
*	*	*	*	*	*	*	*	*	*
GAT ATT GGT GGG AGT GTA TCT GCA GGA TTT AGT AAT TCG AAT TCA AGT									
Asp Ile Gly Gly Ser Val Ser Ala Gly Phe Ser Asn Ser Asn Ser Ser>									
a a a a a TRANSLATION OF UNTITLED2 [A]								a a a a	>

1241 Exon 1

FIG 1G

1260	1270	1280	1290
* * *	* * *	* * *	* * *
ACG GTC GCA ATT GAT CAT TCA CTA TCT CTA GCA GGG GAA AGA ACT TGG			
Thr Val Ala Ile Asp His Ser Leu Ser Leu Ala Gly Glu Arg Thr Trp>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>
1300	1310	1320	1330
* * *	* * *	* * *	* * *
GCT GAA ACA ATG GGT TTA AAT ACC GCT GAT ACA GCA AGA TTA AAT GCC			
Ala Glu Thr Met Gly Leu Asn Thr Ala Asp Thr Ala Arg Leu Asn Ala>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>
1350	1360	1370	1380
* * *	* * *	* * *	* * *
AAT ATT AGA TAT GTA AAT ACT GGG ACG GCT CCA ATC TAC AAC GTG TTA			
Asn Ile Arg Tyr Val Asn Thr Gly Thr Ala Pro Ile Tyr Asn Val Leu>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>
1400	1410	1420	1430
* * *	* * *	* * *	* * *
CCA ACG ACT TCG TTA GTG TTA GGA AAA AAT CAA ACA CTC GCG ACA ATT			
Pro Thr Thr Ser Leu Val Leu Gly Lys Asn Gln Thr Leu Ala Thr Ile>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>

FIG 1H

1450	1460	1470	1480	1490
* * *	* * *	* * *	* * *	* * *
AAA GCT AAG GAA AAC CAA TTA AGT CAA ATA CTT GCA CCT AAT AAT TAT				
Lys Ala Lys Glu Asn Gln Leu Ser Gln Ile Leu Ala Pro Asn Asn Tyr>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a
1500	1510	1520	1530	
* * *	* * *	* * *	* * *	
TAT CCT TCT AAA AAC TTG GCG CCA ATC GCA TTA AAT GCA CAA GAC GAT				
Tyr Pro Ser Lys Asn Leu Ala Pro Ile Ala Leu Asn Ala Gln Asp Asp>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a
1540	1550	1560	1570	1580
* * *	* * *	* * *	* * *	* * *
TTC AGT TCT ACT CCA ATT ACA ATG AAT TAC AAT CAA TTT CTT GAG TTA				
Phe Ser Ser Thr Pro Ile Thr Met Asn Tyr Asn Gln Phe Leu Glu Leu>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a
1590	1600	1610	1620	1630
* * *	* * *	* * *	* * *	* * *
GAA AAA ACG AAA CAA TTA AGA TTA GAT ACG GAT CAA GTA TAT GGG AAT				
Glu Lys Thr Lys Gln Leu Arg Leu Asp Thr Asp Gln Val Tyr Gly Asn>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a

FIG 11

1640	1650	1660	1670	1680
* * *	* * *	* * *	* * *	* * *
ATA GCA ACA TAC AAT TTT GAA AAT GGA AGA GTG AGG GTG GAT ACA GGC				
Ile Ala Thr Tyr Asn Phe Glu Asn Gly Arg Val Arg Val Asp Thr Gly>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a
1690	1700	1710	1720	1730
* * *	* * *	* * *	* * *	* * *
TCG AAC TGG AGT GAA GTG TTA CCG CAA ATT CAA GAA ACA ACT GCA CGT				
Ser Asn Trp Ser Glu Val Leu Pro Gln Ile Gln Glu Thr Thr Ala Arg>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a
1740	1750	1760	1770	
* * *	* * *	* * *	* * *	
ATC ATT TTT AAT GGA AAA GAT TTA AAT CTG GTA GAA AGG CGG ATA GCG				
Ile Ile Phe Asn Gly Lys Asp Leu Asn Leu Val Glu Arg Arg Ile Ala>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a
1780	1790	1800	1810	1820
* * *	* * *	* * *	* * *	* * *
GCG GTT AAT CCT AGT GAT CCA TTA GAA ACG ACT AAA CCG GAT ATG ACA				
Ala Val Asn Pro Ser Asp Pro Leu Glu Thr Thr Lys Pro Asp Met Thr>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a	a a a a	a a a a	a a a a

FIG 1J

1830	1840	1850	1860	1870
* * *	* * *	* * *	* * *	* * *
TTA AAA GAA GCC CTT AAA ATA GCA TTT GGA TTT AAC GAA CCG AAT GGA				
Leu Lys Glu Ala Leu Lys Ile Ala Phe Gly Phe Asn Glu Pro Asn Gly>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a	a a a	a a a	a a a
>				
1880	1890	1900	1910	1920
* * *	* * *	* * *	* * *	* * *
AAC TTA CAA TAT CAA GGG AAA GAC ATA ACC GAA TTT GAT TTT AAT TTC				
Asn Leu Gln Tyr Gln Gly Lys Asp Ile Thr Glu Phe Asp Phe Asn Phe>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a	a a a	a a a	a a a
>				
1930	1940	1950	1960	1970
* * *	* * *	* * *	* * *	* * *
GAT CAA CAA ACA TCT CAA AAT ATC AAG AAT CAG TTA GCG GAA TTA AAC				
Asp Gln Gln Thr Ser Gln Asn Ile Lys Asn Gln Leu Ala Glu Leu Asn>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a	a a a	a a a	a a a
>				
1980	1990	2000	2010	
* * *	* * *	* * *	* * *	
GCA ACT AAC ATA TAT ACT GTA TTA GAT AAA ATC AAA TTA AAT GCA AAA				
Ala Thr Asn Ile Tyr Thr Val Leu Asp Lys Ile Lys Leu Asn Ala Lys>				
a a a a TRANSLATION OF UNTITLED2 [A]	a a a	a a a	a a a	a a a
>				

FIG 1K

2020		2030	2040	2050	2060	
*	*	*	*	*	*	*
ATG AAT ATT TTA ATA AGA GAT AAA CGT TTT CAT TAT GAT AGA AAT AAC						
Met Asn Ile Leu Ile Arg Asp Lys Arg Phe His Tyr Asp Arg Asn Asn>						
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a	>
2070		2080	2090	2100	2110	
*	*	*	*	*	*	*
ATA GCA GTT GGG GCG GAT GAG TCA GTA GTT AAG GAG GCT CAT AGA GAA						
Ile Ala Val Gly Ala Asp Glu Ser Val Val Lys Glu Ala His Arg Glu>						
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a	>
2120		2130	2140	2150	2160	
*	*	*	*	*	*	*
GTA ATT AAT TCG TCA ACA GAG GGA TTA TTG TTA AAT ATT GAT AAG GAT						
Val Ile Asn Ser Ser Thr Glu Gly Leu Leu Leu Asn Ile Asp Lys Asp>						
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a	>
2170		2180	2190	2200	2210	
*	*	*	*	*	*	*
ATA AGA AAA ATA TTA TCA GGT TAT ATT GTA GAA ATT GAA GAT ACT GAA						
Ile Arg Lys Ile Leu Ser Gly Tyr Ile Val Glu Ile Glu Asp Thr Glu>						
a a a a TRANSLATION OF UNTITLED2 [A]	a	a	a	a	a	>

FIG 1L

2220	2230	2240	2250
* * *	* * *	* * *	* * *
GGG CTT AAA GAA GTT ATA AAT GAC AGA TAT GAT ATG TTG AAT ATT TCT			
Gly Leu Lys Glu Val Ile Asn Asp Arg Tyr Asp Met Leu Asn Ile Ser>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>
2260	2270	2280	2290
* * *	* * *	* * *	* * *
AGT TTA CGG CAA GAT GGA AAA ACA TTT ATA GAT TTT AAA AAA TAT AAT			
Ser Leu Arg Gln Asp Gly Lys Thr Phe Ile Asp Phe Lys Lys Tyr Asn>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>
2310	2320	2330	2340
* * *	* * *	* * *	* * *
GAT AAA TTA CCG TTA TAT ATA AGT AAT CCC AAT TAT AAG GTA AAT GTA			
Asp Lys Leu Pro Leu Tyr Ile Ser Asn Pro Asn Tyr Lys Val Asn Val>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>
2360	2370	2380	2390
* * *	* * *	* * *	* * *
TAT GCT GTT ACT AAA GAA AAC ACT ATT ATT AAT CCT AGT GAG AAT GGG			
Tyr Ala Val Thr Lys Glu Asn Thr Ile Ile Asn Pro Ser Glu Asn Gly>			
a a a a TRANSLATION OF UNTITLED2 [A]	a a a a		>

FIG 1M

2410	2420	2430	2440	2450
* * *	* * *	* * *	* * *	* * *
GAT ACT AGT ACC AAC GGG ATC AAG AAA ATT TTA ATC TTT TCT AAA AAA				
Asp Thr Ser Thr Asn Gly Ile Lys Lys Ile Leu Ile Phe Ser Lys Lys>				
a a a a TRANSLATION OF UNTITLED2 [A]			a a a	a >

2452	2460	2470	2480	2490
	End PA ORF	STOP codon		
* * *	* * *	* * *	* * *	* * *
GGC TAT GAG ATA GGA TAA GGT AAT TCT AGG TGA TTT TTA AAT TAT CTA				
Gly Tyr Glu Ile Gly *** Gly Asn Ser Arg *** Phe Leu Asn Tyr Leu>				
a a a a TRANSLATION OF UNTITLED2 [A]			a a a	a >

2500	2510	2520	2530	2540
* * *	* * *	* * *	* * *	* * *
AAA AAC AGT AAA ATT AAA ACA TAC TCT TTT TGT AAG AAA TAC AAG GAG				
Lys Asn Ser Lys Ile Lys Thr Tyr Ser Phe Cys Lys Lys Tyr Lys Glu>				
a a a a TRANSLATION OF UNTITLED2 [A]			a a a	a >

FIG 1N

```

2550      *      *      *      *      *      *      *      *      *      *
      AGT ATG TTT TAA ACA GTA ATC TAA ATC ATC ATC ATA ATC CTT TGA GAT TGT
      Ser Met Phe *** Thr Val Ile *** Ile Ile Ile Ile Leu *** Asp Cys>
      a      a      a      a      a      a      a      a      a      a      >

2600
      *      *      *
      TTG TAG GAT CC
      Leu *** Asp Pro>
      a      a      a      a      a      a      a      a      a      a      >

```

FIG 10

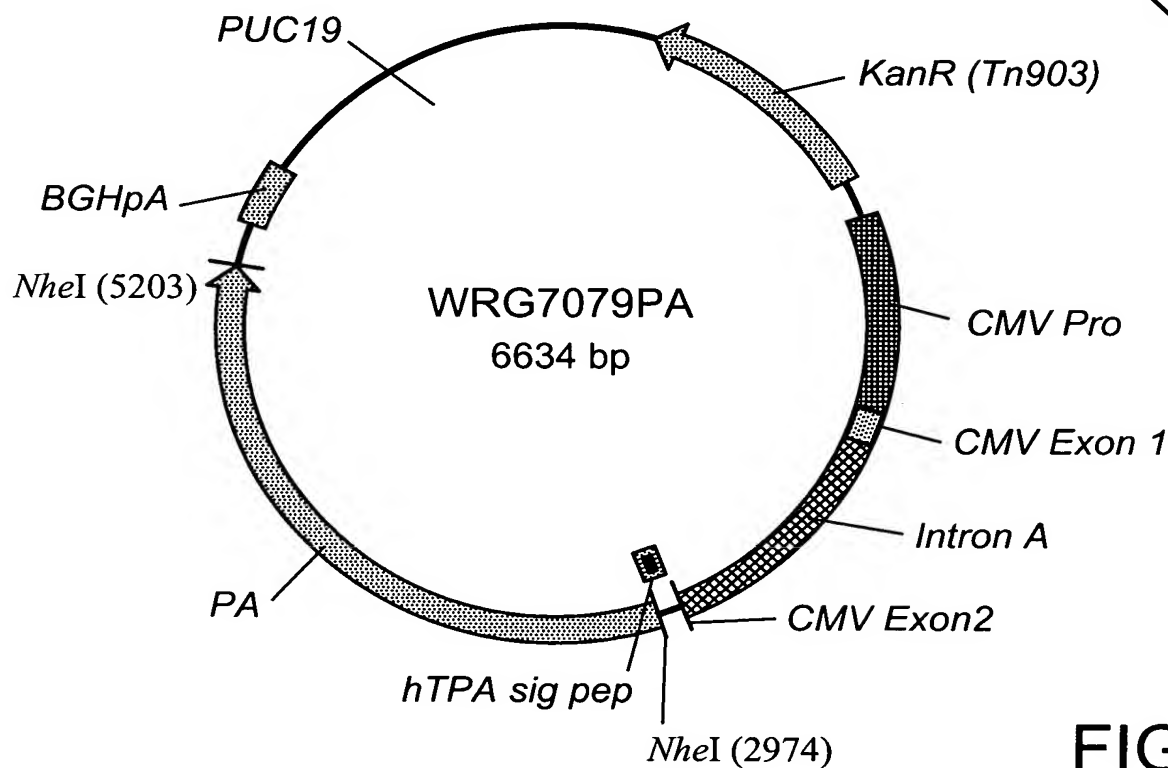
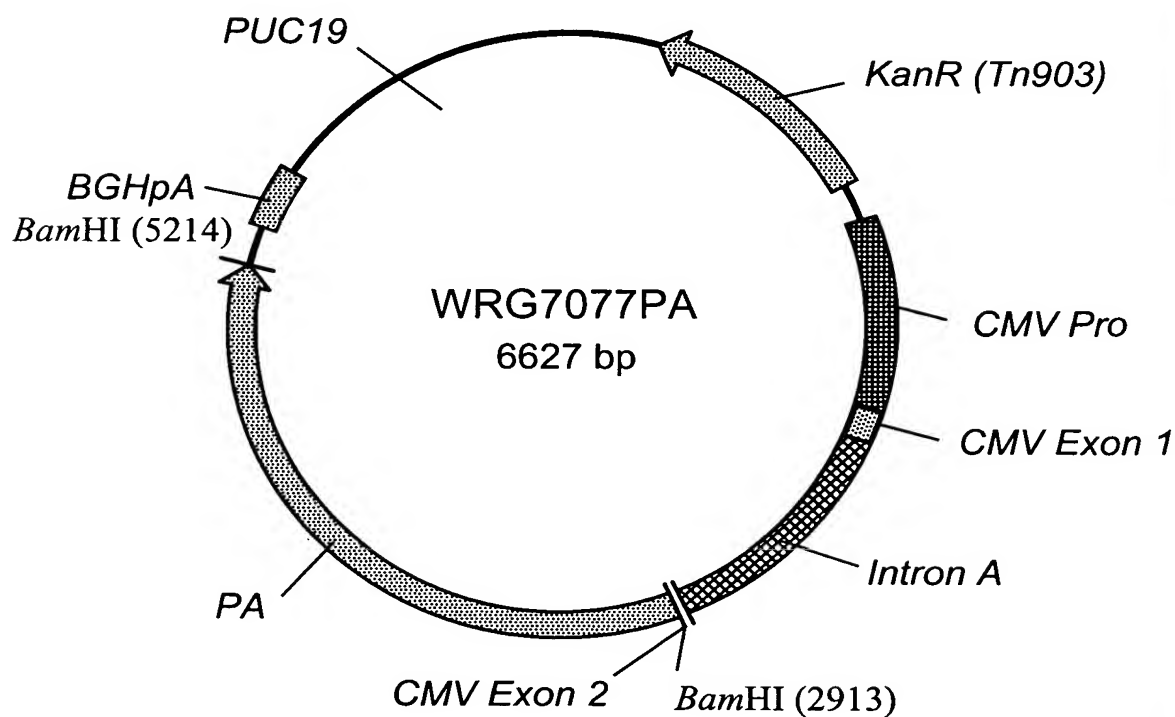


FIG. 2



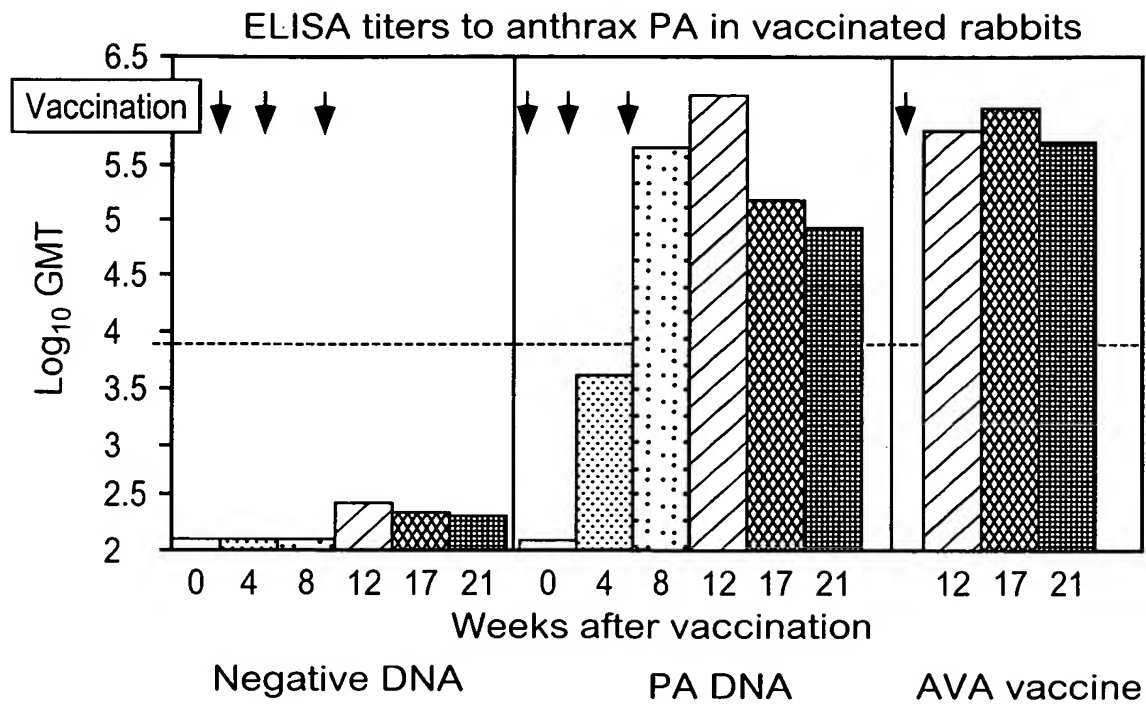


FIG. 3